



## Ecological dynamics across the Arctic associated with recent climate change

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### Abstract:

At the close of the Fourth International Polar Year, we take stock of the ecological consequences of recent climate change in the Arctic, focusing on effects at population, community, and ecosystem scales. Despite the buffering effect of landscape heterogeneity, Arctic ecosystems and the trophic relationships that structure them have been severely perturbed. These rapid changes may be a bellwether of changes to come at lower latitudes and have the potential to affect ecosystem services related to natural resources, food production, climate regulation, and cultural integrity. We highlight areas of ecological research that deserve priority as the Arctic continues to warm.

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### Resource Description

#### Communication: ☒

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience: ☒

audience to whom the resource is directed

Policymaker, Researcher

#### Exposure : ☒

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Security

**Food/Water Security:** Agricultural Productivity, Livestock Productivity

#### Geographic Feature: ☒

resource focuses on specific type of geography

# Climate Change and Human Health Literature Portal

Arctic

## **Geographic Location:**

resource focuses on specific location

Global or Unspecified

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Model/Methodology:**

type of model used or methodology development is a focus of resource

Exposure Change Prediction

## **Resource Type:**

format or standard characteristic of resource

Review

## **Timescale:**

time period studied

Short-Term (

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content